

PROJECT facts

U.S. DEPARTMENT OF ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY

Natural Gas
Infrastructure Reliability

09/2002

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PRIMARY PROJECT PARTNER

Southwest Research Institute

San Antonio, TX

PROJECT DURATION

12 Months

COST SHARING

DOE \$65,000

Non-DOE \$35,000

STRATEGIC CENTER FOR NATURAL GAS WEBSITE

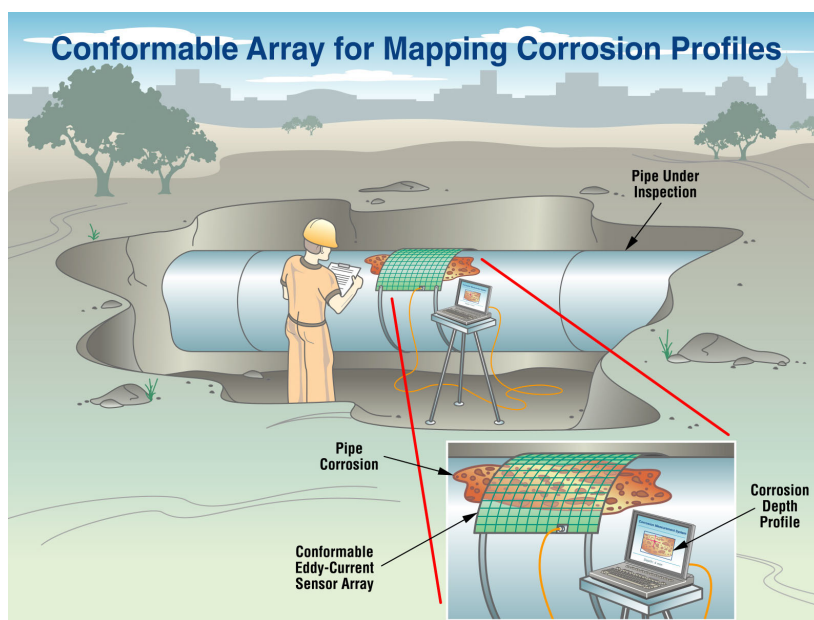
www.netl.doe.gov/scng

CONFORMABLE ARRAY FOR MAPPING CORROSION PROFILES

Description

This project will add new technology to the integrity management of transmission pipelines. Today's integrity management procedures include field measurement of pipeline corrosion as a defect-assessment method. These measurements were usually made manually with a micrometer and a device called a bridging bar. Measurement has been automated with a laser scanner that can make an accurate map of the corroded surface. However, the laser device is inconvenient to use and requires that the pipe surface be very clean.

Southwest Research Institute (SwRI) will develop a simple, low-cost, rugged device to map the corroded surface areas. The device will use eddy-current sensing coils in a conformable array that can be wrapped around the pipe surface to measure the corrosion pattern. SwRI's partner in this project is Clockspring Co. LP in Houston, Texas. Clockspring is a leader in field repair of defective pipelines and is interested in adding capability for defect measurement to its product line.



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Goal

The goal of this project is to help modernize the nation's natural gas delivery system. It responds to the Secretary of Energy's message of May 2001: "By 2020, Americans will be consuming 50 percent more natural gas than today. We will need newer, cleaner, and safer pipes to move these larger quantities of natural gas." The project responds to the Natural Gas Infrastructure Reliability Program goal: to foster the technologies needed to ensure the integrity, operational reliability, and efficiency of the nation's natural gas infrastructure as it adapts to rapidly changing natural gas markets.

CUSTOMER SERVICE

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